Louisiana Energy Indicators

Center for Energy Studies

Louisiana State University Spring 1983

The Center for Energy Studies is proud to present the *first* quarterly issue of *Louisiana Energy Indicators*. The intent of this publication is to visually inform legislators, businessmen, administrators, and citizens of the interrelationships of the energy-related business and industry production, sales, employment, taxes, prices, consumption, etc. The data will show past trends as to what occurred and allow those using to make projections as to what might occur.

The Center for Energy Studies staff has gathered pertinent monthly data from 1977 forward from numerous state and federal offices and several publications. Cheerful and unusual assistance at all levels contributed to successful data gathering. These data, which now contain time series on approximately 150 variables, have been entered in our *Louisiana Energy Indicators Data Base*. Some of the variables will be featured quarterly in *Louisiana Energy Indicators*. Others will occur on a rotating or special basis.

Due to space constraints all tables, except for a featured series, represent only the past two years of data. The featured item, which for this issue is natural gas, will present quarterly the Center's monthly time series from 1977.

Both the data base and this quarterly publication are intended to be dynamic. As new monthly data become available, they will be added, and as issues arise, an attempt will be made to cover them. If users of this publication would like a listing of the variables currently included in the data base, please send your request and a self-addressed, stamped envelope to:

Roberta A. Scull
Center for Energy Studies
Louisiana State University
Baton Rouge, LA 70803-0301

Suggestions for improving this publication and ideas for future featured series and or additional variables are sought and welcomed. The more input we have from the users of this publication, the more valuable it will be. If possible, suggestions will be incorporated.

What if . . .

Louisiana's current fiscal condition may revive an old issue. That is, should the natural gas severance tax be levied on a percent-of-value basis rather than a unit basis. The concept is not without precedent since legislation was enacted in 1972 (later repealed) that authorized a gas severance tax of 11/2 percent of value.

The accompanying table illustrates the revenue impact or the cost to industry, depending on one's perspective of the application of tax rates, of the six top gas-producing states to the fiscal year 1981-82 taxable gas production in Louisiana. Column one contains the basic severance tax rate exclusive of any minor exemptions in each state. The very low rate of tax levied in the State of Kansas should not be included as a severance tax since the revenues derived just support the regulatory activities of the state. The second column illustrates what the gas severance tax would have been had the tax rate of these other states been applied to the 2.29 billion Mcf of gas production in Louisiana during FY 82 at an average price of $2.00 Mcf. This price was selected as a conservative average based on a reported figure of $2.07 at wellhead by the *Natural Gas Annual 1981*, Energy Information Administration, Office of Oil and Gas, U.S. Department of Energy, September 1982. The implicit severance tax ranges from a low of 1.9 million using the Kansas conservation rate to a high of $343.0 million using the Texas rate. The last column of the table shows the difference between what Louisiana actually collected during FY 82 and what would have been collected at the other rates. It should also be noted that of the states listed in the table Louisiana has the lowest severance tax on gas (with the Kansas exception) but the highest severance tax on oil.

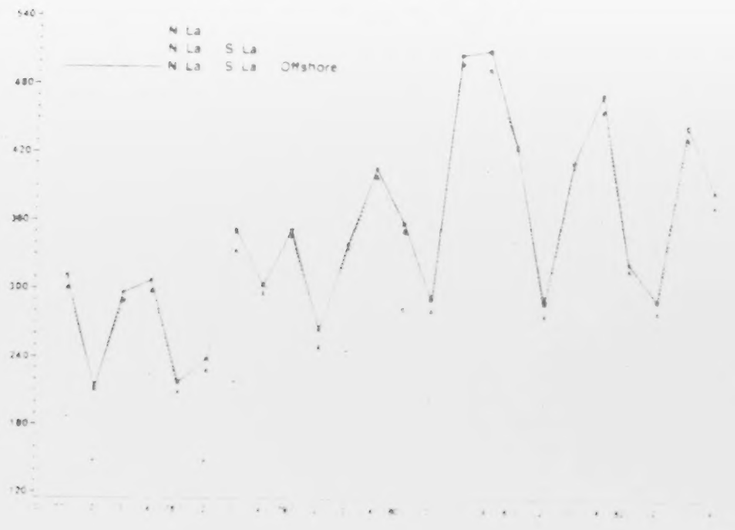
Gas Severance Tax Rates and the Implicit Louisiana Severance Tax for Selected States, 1981-82

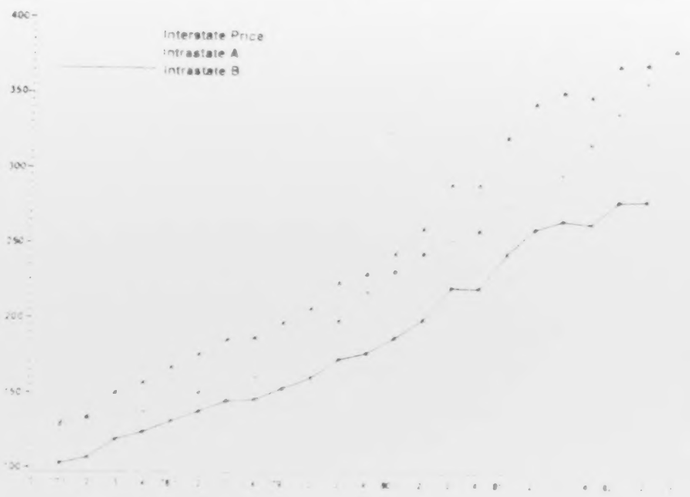
	Gas Severance Tax Rate	Implicit Louisiana Gas Severance Tax (million $)	Difference from Louisiana (million $)
Louisiana	7¢/Mcf	159.4	—
Texas	7.5% of value	343.5	184.1
Oklahoma	7.085% of value	324.5	165.1
New Mexico	2.74% of value plus 5¢/Mcf	240.0	80.6
Kansas	085¢/Mcf	1.9	-157.5
Wyoming	8 Mills per dollar plus 6% of value	275.2	115.8

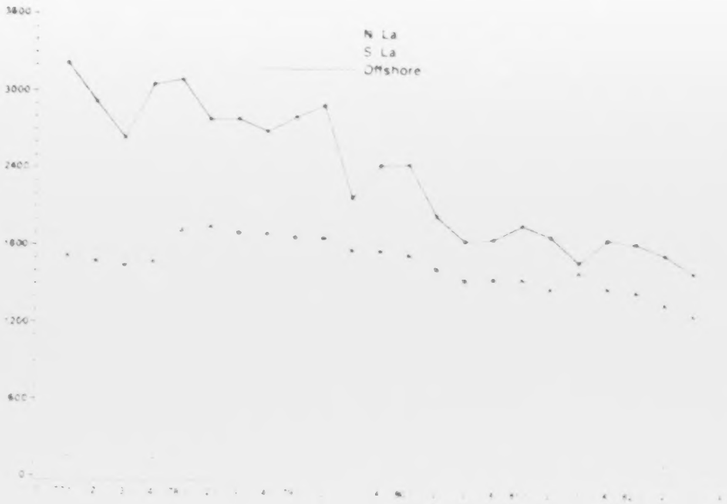
Rate as of May 1981.

Louisiana is actual, others are based on Louisiana taxable production of 2.29 billion Mcf in 1981-82 and an average wellhead price of $2.00 Mcf.

Historical Presentation—Natural Gas







Indicator	77.1	77.2	77.3	77.4	78.1	78.2	78.3	78.4	79.1	79.2	79.3	79.4
NATURAL GAS PRODUCTION (MMCFPD)												
North	955	956	942	924	933	915	897	885	923	952	1,822	1,015
South	2,420	2,376	2,362	2,326	6,313	6,343	6,190	6,069	5,968	5,916	5,822	5,649
Offshore	1,424	1,288	1,183	1,402	1,421	1,321	1,341	1,272	1,303	1,351	1,289	1,288
Total	4,800	4,621	4,489	4,652	8,668	8,581	8,428	8,227	8,195	8,220	8,134	7,953
NATURAL GAS PROD/WELL (MCFPD)												
North	155	153	147	141	141	134	127	123	128	132	137	133
South	1,732	1,681	1,649	1,681	1,924	1,951	2,063	1,893	1,871	1,866	1,770	1,762
Offshore	3,213	2,918	2,639	3,053	3,094	2,782	2,787	2,693	2,805	2,896	2,174	2,427
NATURAL GAS COMPLETIONS												
North	188	147	213	225	138	147	219	218	265	155	247	322
South	112	64	76	73	71	81	115	78	82	94	89	77
Offshore	11	1	7	9	8	10	18	7	5	15	3	7
Total	311	212	296	307	217	238	352	303	352	264	339	406
NATURAL GAS PRICES ($/MCF)												
Interstate	1.30	1.33	1.35	1.37	1.43	1.50	1.55	1.60	1.66	1.82	1.98	2.17
Intrastate (A)	1.28	1.38	1.50	1.58	1.57	1.75	1.85	1.86	1.97	2.06	2.24	2.30
Intrastate (B)	1.02	1.07	1.18	1.24	1.31	1.37	1.44	1.45	1.53	1.60	1.73	1.77

Indicator	80.1	80.2	80.3	80.4	81.1	81.2	81.3	81.4	82.1	82.2	82.3	82.4
NATURAL GAS PRODUCTION (MMCFPD)												
North	1,000	996	1,008	1,101	1,125	1,149	1,171	1,092	1,125	1,039	989	972
South	5,586	5,325	5,046	5,121	5,049	4,835	5,124	4,655	4,515	4,296	3,949	4,007
Offshore	1,249	1,138	997	1,083	1,080	1,045	932	1,040	1,012	971	912	1,036
Total	7,836	7,459	7,051	7,225	7,254	7,030	7,227	6,787	6,653	6,307	5,850	6,015
NATURAL GAS PROD/WELL (MCFPD)												
North	127	122	118	124	12_	123	122	111	113	103	97	94
South	1,732	1,621	1,534	1,545	1,545	1,479	1,602	1,475	1,449	1,352	1,268	1,283
Offshore	2,432	2,032	1,829	1,853	1,964	1,877	1,678	1,852	1,825	1,737	1,596	1,820
Total												
NATURAL GAS COMPLETIONS												
North	282	200	416	403	340	197	313	362	234	186	325	276
South	69	81	82	90	84	80	94	94	83	94	107	97
Offshore	7	10	7	16	2	11	4	14	6	10	11	12
Total	358	291	505	509	426	288	411	470	323	290	443	385
NATURAL GAS PRICES ($/MCF)												
Interstate	2.31	2.43	2.51	2.58	2.74	2.86	2.96	3.16	3.37	3.57	3.78	
Intrastate (A)	2.43	2.60	2.89	2.89	3.20	3.43	3.50	3.47	3.68	3.84		
Intrastate (B)	1.86	1.99	2.20	2.19	2.43	2.64	2.66	2.64	2.74			

Note: Intrastate A price was computed as the weighted average price charged by Louisiana Intrastate, Monterey, and Sugar Bowl. Intrastate B was computed by adding the Texaco contract (27 percent market share at 34c Mcf) to Interstate A and recomputing a weighted average. Data on the Texaco contract was taken from Foster and Associates, *The Impact of NGPA on Intrastate Markets in Louisiana*, 1982)

SOURCES OF LOUISIANA ENERGY INDICATOR DATA

Publications

Electric Power Monthly. U.S. Dept. of Energy. Energy Information Administration. Office of Coal, Nuclear, Electric, and Alternate Fuels.
Electricity Production and Consumption Data

Employment and Total Wages Paid by Employers Subject to the Louisiana Employment Security Law. Louisiana Dept. of Labor. Office of Employment Security, Research and Statistics Unit. Quarterly.
Wages, Number of Establishments, Employment Data

Louisiana Climatological Data. U.S. Dept. of Commerce. National Weather Service. Monthly.
Heating and Cooling Degree Days (Not in this issue)

Labor Market Information. Louisiana Dept. of Labor. Office of Employment Security, Research and Statistics Unit. Monthly.
Employment Data

Louisiana Petroleum Activity Report. Monthly.
Drilling, Rig Activity, Oil and Gas Production, Refinery Runs and Stocks Data

Monthly Energy Review. U.S. Dept. of Energy. Energy Information Administration. Monthly.
Crude Oil Prices, Interstate Natural Gas Price Data

Monthly Motor Gasoline Reported by States. U.S. Dept. of Transportation. Monthly
Gasoline Consumption

Oil and Gas Journal. Penn Well Publishing Company. Tulsa, Oklahoma.
Gasoline Prices

Weekly Petroleum Status Report. U.S. Dept. of Energy. Energy Information Administration.
Crude Oil Prices

Other Sources

Louisiana Public Service Commission. (Unprinted Data).
Electricity Prices

Louisiana Department of Revenue. AM08 Revenue Projections Model. Monthly Monitoring Report. (Mimeograph).
Taxes and Revenues

The Department of Energy's 1981 *Natural Gas Annual* estimated Louisiana proved reserves at 48.5 billion Mcf. At $2.00 Mcf, Louisiana's natural gas reserves are at $97 billion dollars

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Baton Rouge, LA

Louisiana Energy Indicators is published quarterly by the Center for Energy Studies, Louisiana State University, E. Fraternity Circle, Baton Rouge, LA 70803-0301, (504) 389-0930. For address corrections, please return mailing label to CES with changes. For continued receipt of this and other CES publications, notify Barbara Kavanaugh at the CES address.

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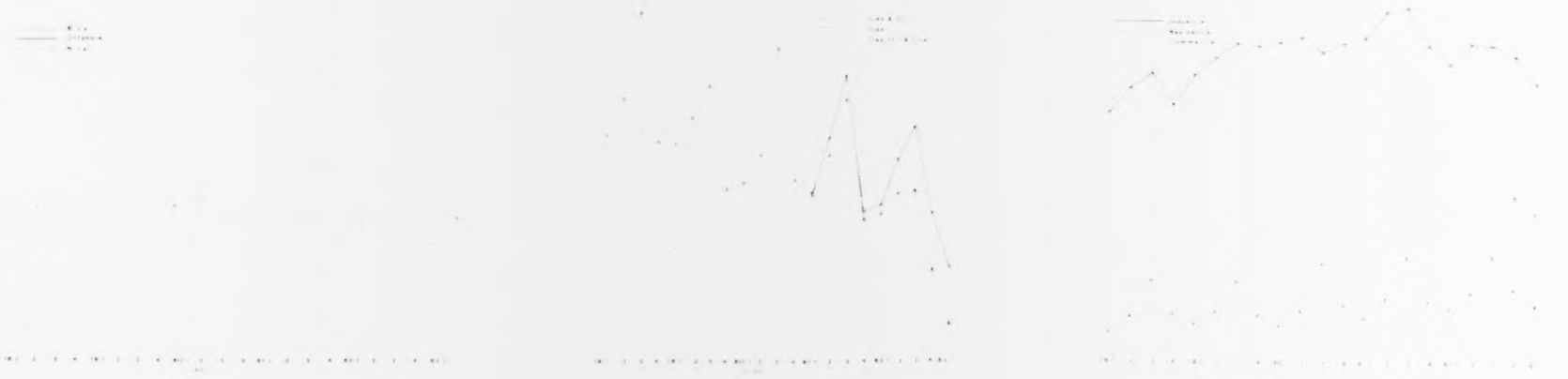
Production

figures represent total
except when otherwise noted

Indicator	1978	1979	1980	1981	1982	1982.2	1982.3	1982.4	Jan	Feb	Mar	Year To Date Through Last Month Reported 1982	Year To Date Through Last Month Reported 1983	Percent Change
OIL WELLS COMPLETED														
North	493	643	926	1,044	1,273	318	321	205	114	88	193	254	199	-21.5
South	304	272	290	313	349	68	87	89	19	28	41	81	144	77.8
Offshore	42	28	20	18	14	4	4	3	0	0	0	0	0	100.0
Total	839	943	1,236	1,369	1,636	390	412	297	133	116	234	335	343	2.4
GAS WELLS COMPLETED														
North	722	989	1,301	1,212	1,021	184	125	126	30	45	47	234	110	-41.8
South	345	342	322	352	381	94	107	97	28	27	29	83	84	1.2
Offshore	43	30	40	31	39	10	11	12	0	2	2	6	4	-33.3
Total	1,110	1,361	1,663	1,595	1,441	290	243	235	58	74	92	323	224	-30.6
DRY HOLES DRILLED														
North	589	575	822	693	588	284	263	216	35	62	59	129	151	16.9
South	649	680	733	695	734	177	182	151	50	76	40	124	166	33.9
Offshore	18	36	51	52	38	10	10	4	1	1	1	13	13	0.0
Total	1,256	1,291	1,606	1,440	1,360	471	445	365	86	151	95	466	330	-29.2
ACTIVE RIGS - WILDCATTING (Ave.)														
North	20	18	34	33	30	9	9	8	10	7	6	16	7	-56.3
South	46	38	64	59	32	17	20	23	43	36	35	40	59	47.5
Offshore	2	4	7	6	3	2	2	4	8	5	5	2	6	200.0
Total	68	60	105	98	65	48	49	35	63	50	46	63	57	-9.5
ACTIVE RIGS (Ave. End of Month) (DRI)														
North	75	74	103	119	164	152	159	164	200	59	53	160	100	-37.5
South	196	165	254	249	161	163	167	136	147	158	147	227	149	-34.4
Offshore	9	14	17	18	12	13	13	12	15	15	15	15	15	0.0
Total	274	273	364	386	337	393	393	314	362	230	203	496	262	-33.8
RUNNING RIGS (Ave. Hughes Tool Co.)														
North	29	35	52	59	40	43	27	35	33	45	25	54	34	-37.0
South	133	169	171	243	168	165	134	130	140	153	137	240	145	-44.1
Total	162	204	243	302	208	208	161	165	173	198	162	294	177	-49.7
NATURAL GAS PRODUCTION (MMCFPD)														
North	904	979	1,000	1,135	1,032	1,040	1,990	927	974	984	926	1,916	901	-14.6
South	6,235	5,845	5,275	4,921	4,195	4,206	3,952	4,000	3,900	3,854	3,737	4,235	3,830	-19.2
Offshore	1,340	1,609	1,718	1,023	983	972	1,053	1,036	921	867	870	1,737	906	-12.5
Total	8,483	8,233	7,993	7,081	6,210	6,812	6,655	5,963	4,563	5,705	5,533	7,653	5,637	-14.6
NATURAL GAS PROD/WELL (MCFPD)														
North	131	133	120	119	101	103	97	94	93	94	89	111	92	-16.5
South	1,922	1,819	1,609	1,524	1,358	1,353	1,269	1,283	1,234	1,224	1,188	1,449	1,215	-16.2
Offshore	2,838	2,575	2,038	1,842	1,744	1,737	1,596	1,820	1,622	1,560	1,549	1,825	1,577	-13.5
NATURAL GAS COMPLETIONS														
North	722	989	1,301	1,212	1,021	166	125	126	30	45	47	234	110	-41.8
South	345	342	322	352	381	94	107	97	28	27	29	83	84	1.2
Offshore	43	30	40	31	39	10	11	12	0	2	2	6	4	-33.3
Total	1,110	1,361	1,663	1,595	1,441	290	243	235	58	74	92	323	224	-30.6
NATURAL GAS PRICES ($/MCF)														
Interstate 1-	0.91	1.18	1.59	1.98	3.72	3.63	3.78	3.96	4.32	4.33	4.23	3.59	4.29	19.4
Intrastate (A) 2	1.76	2.14	2.70	3.40	3.71	3.69	3.74	3.73	3.80	3.84	3.82	3.68	3.80	3.3
Intrastate (B) 2	1.39	1.66	2.06	2.56	2.80	2.78	2.82	2.81	2.86	2.89	2.88	2.78	2.87	3.2
CRUDE OIL PRODUCTION (MBPD) - Ave.														
North	86.4	78.7	79.1	83.5	86.3	86.3	86.6	85.8	82.8	84.1	84.5	86.4	83.8	- 3.0
South	414.9	356.8	318.9	283.2	259.8	268.5	263.1	264.0	245.1	253.5	256.4	262.6	252.8	- 3.8
Offshore	79.3	77.2	67.8	65.4	60.2	63.4	62.9	57.7	59.4	58.0	60.6	61.7	59.3	- 3.9
Total	580.6	506.7	465.9	432.2	406.4	417.9	412.7	407.5	388.3	395.6	401.5	410.7	395.1	- 3.7
ELECTRICITY PRODUCTION (Gigawatts)														
Gas generated	36,921	38,394	40,955	39,948	35,539	9,367	7,973	7,442	2,269	1,885	1,626	8,812	5,780	-34.4
Oil generated	14,283	8,260	4,278	2,635	940	471	47	41	0	0	0	361	0	-100.0
Coal generated	0	0	0	0	1,928	5,938	1,036	1,956	1,736	577	590	591	268	1,758	555.9
Total generation	51,204	46,654	45,233	44,111	43,232	10,894	13,058	9,239	2,946	2,475	2,217	9,481	7,038	+20.4
REFINERY RUNS (MMBPD)-Ave.	1.85	1.92	1.7	1.73	1.72	1.73	1.71	1.78	1.68	1.33	1.67	1.62	1.56	- 3.7
CRUDE OIL STOCK-MMBBls.)-Ave.	13.5	13.5	16.4	13.01	12.08	12.06	13.28	12.38	11.3	12.6	12.1	10.0	12.0	20.0

1. Industrial Sale Price by Major Interstate Pipeline Companies
2. Intrastate A price was computed as the weighted average price charged by Louisiana Intrastate, Monterey, and Sugar Bowl gas transmission companies. Intrastate B was computed by adding Texaco (27¢ market share at 348 MCF) to Intrastate A. Data on Texaco was taken from Foster and Associates' The Impact of NGPA on Intrastate Markets in Louisiana: 1982. Data on the other three companies was supplied by the Louisiana Public Service Commission.



Consumption

Indicator	1978	1979	1980	1981	1982	1982.2	1982.3	1982.4	Jan	Feb	Mar	Year To Date Through Last Month Reported 1982	Year To Date Through Last Month Reported 1983	Percent Change
GASOLINE CONSUMPTION (Millions Gal.)														
Louisiana	2,157	2,158	2,013	2,103	2,143	564	548	538	159	150	193	514	502	- 2.3
U.S.	116,780	112,628	106,340	104,156	102,886	26,365	26,902	25,621	7,795	7,681	-	15,334	15,476	+ 0.9
ELECTRICITY CONSUMPTION (Gigawatts)														
Residential	16,024	16,082	17,459	18,119	12,978	3,929	2,642	3,855	1,263	1,240	1,088	3,641	3,591	- 1.3
Comercial	8,579	8,670	9,238	9,592	9,234	2,414	2,387	2,193	736	726	703	2,163	2,260	+ 4.5
Industrial	21,992	24,420	25,175	26,318	22,713	6,301	6,279	6,130	2,018	1,888	1,723	5,984	5,629	- 5.9
Other	3,612	3,720	3,753	4,117	3,737	1,036	1,108	987	347	309	324	921	980	6.0
Total	50,157	52,892	55,513	58,147	48,662	13,680	13,070	13,165	4,364	4,164	3,838	12,709	12,366	- 2.6

Energy Economics

Indicator	1978	1979	1980	1981	1982	1982.2	1982.3	1982.4	Jan	Feb	Mar	Year To Date Through Last Month Reported 1982	Year To Date Through Last Month Reported 1983	Percent Change
ELECTRICITY PRICES (¢/kwh)														
Residential														
CLECO	4.2	4.5	5.1	6.0	7.1	6.7	6.8	7.5	6.7	6.6	7.1	5.9	6.8	15.2
GSU	3.3	3.8	4.1	5.1	5.6	5.4	5.9	6.2	6.0	6.1	6.4	5.9	6.1	24.4
LP&L	2.6	3.0	4.1	5.2	5.7	5.4	5.8	5.9	5.8	5.7	5.8	5.3	5.8	9.4
NOPSI	4.3	4.7	5.3	6.0	6.3	6.3	6.2	6.5	6.2	5.9	6.2	6.1	5.9	-3.2
SWEPCO 3	3.5	3.8	3.7	3.9	5.2	4.5	5.0	5.8	5.3	5.3	5.2	5.6	5.3	47.2
Commercial														
CLECO	4.3	4.6	5.3	5.9	6.9	6.5	6.3	7.4	7.1	6.9	7.4	6.2	7.1	14.5
GSU	3.0	3.5	3.9	4.5	4.9	4.7	4.3	5.4	5.8	5.8	5.9	4.3	5.8	34.8
LP&L	2.6	3.2	4.1	5.5	5.8	5.5	6.0	6.2	6.2	6.1	6.1	5.6	6.1	8.9
NOPSI	4.3	4.9	5.2	6.4	6.7	6.7	6.5	6.5	6.3	6.3	6.4	6.3	6.3	-1.5
SWEPCO 3	2.5	2.5	3.2	3.3	4.2	3.8	4.3	5.1	4.9	4.9	4.8	5.0	4.9	53.1
Industrial														
CLECO	2.8	3.1	3.8	4.6	5.4	5.3	5.5	5.8	5.8	5.7	5.5	4.7	5.2	10.6
GSU	1.9	2.4	2.7	3.7	3.6	3.6	3.4	3.9	4.0	4.0	4.1	3.0	4.0	33.3
LP&L	1.5	1.9	3.0	4.0	4.4	4.1	4.6	4.6	4.6	4.7	5.1	4.2	4.8	14.3
NOPSI	3.1	3.6	3.9	5.0	5.4	5.4	5.4	5.5	5.2	5.1	5.1	5.2	5.1	-1.9
SWEPCO 3	2.0	2.0	2.8	2.9	4.2	3.3	4.2	4.8	4.4	4.5	4.3	4.7	4.4	61.9
WELL HEAD PRICE OF CRUDE OIL ($Bbl. - Ave.)	9.28	15.66	24.32	31.85	28.50	27.81	28.19	28.52	27.22	26.43	25.82	29.64	26.49	-10.6
GAS/LINE PRICES (Ave. ¢/Gal.)														
New Orleans Ave. Retail Pump	66.43	100.67	113.57	131.3	124.2	121.0	127.7	124.0	117.9	115.4	114.0	124.9	115.7	-7.3
U.S. Ave. Retail Pump	65.36	98.11	119.87	131.1	127.9	123.1	128.2	129.9	118.0	114.9	112.7	126.4	115.2	-8.8
EMPLOYMENT (Ave.)														
Oil and gas production (SIC 13)	73,244	78,172	90,112	94,721	95,552	95,535	89,101	92,650	91,200	90,600	90,200	100,380	90,666	-9.6
Chemical and allied products (SIC 28)	31,469	32,796	33,166	32,667	32,410	34,340	33,846	31,350	32,000	31,700	31,500	34,579	31,731	-8.2
Petroleum Refining (SIC 29)	11,719	13,127	13,673	14,314	13,166	13,179	12,718	12,800	12,900	13,000	12,900	14,098	12,933	-8.2
WAGES - ($Million$)														
Oil and gas production (SIC 13)	3901	4491	5801	7317	-	1986	1873	-	-	-	-	-	-	-
Chemical and allied products (SIC 28)	2040	2296	2635	2831	-	793.2	803.7	-	-	-	-	-	-	-
Petroleum refining (SIC 29)	763	872	1083	1418	-	306.3	311.8	-	-	-	-	-	-	-

3. Reflects rate increase granted SWEPCO by the PSC April 19, 1982